

# **METHOD TO ESTIMATE POWER AND COOLING REQUIREMENTS OF SYSTEMS**

## **ABSTRACT OF THE DISCLOSURE**

A method is described for computing the power consumption of a device. The method comprises (1) determining the number and type of each of a plurality of components comprising a system, (2) determining a component power consumption for each of the plurality of components, and (3) determining a device power consumption by summing the component power consumptions of all of the plurality of components. A rack holds multiple systems, provides power to the systems and cool air to remove thermal energy from the systems. Power and cooling requirements for a rack are determined by (1) determining the number and type of components comprising each of the plurality of systems, (2) determining component power consumption for each of the plurality of components, (3) determining a system power consumption for each system by summing the component power consumptions of all components in each system, and (4) determining a rack power consumption by summing the system power consumptions for all systems.